

AMIROUCHE MOKTEFI and FRANCINE F. ABELES (eds.), *‘What the Tortoise Said to Achilles’: Lewis Carroll’s Paradox of Inference*, special issue of: *The Carrollian: The Lewis Carroll Journal*, n° 28 (double issue), November 2016. 136 pages; ISBN: 978 0 904117 39 4.

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This double issue of the *Carrollian*, the journal of the Lewis Carroll Society, is entirely devoted to Lewis Carroll’s famous short paper published in the journal *Mind* in 1895 under the title ‘What the Tortoise Said to Achilles’. In the form of a playful dialogue between Achilles and the Tortoise, Carroll offers a regress that suggests that one could never reach the conclusion of any argument. This conclusion is paradoxical since in fact we routinely do reach such conclusions. Carroll’s regress has become iconic, and philosophical discussions around it are livelier than ever.

This collection is edited by two specialists of Carroll’s scientific work, and indeed by a perfect pair: the mathematician Francine Abeles who is an expert in Victorian logic and mathematics, particularly in Carroll’s logical and mathematical work; and the philosopher Amirouche Moktefi, who specializes in the history and philosophy of logic, especially in the XIXth Century. As stated in their introduction to the volume, the editors’ aim is to ‘offer a set of papers providing key elements to the history and purpose of [Carroll’s] enigmatic piece that will contribute to Carrollian studies and, more generally, to philosophy.’ (p. 2) In this, they have achieved their goal. The articles in their collection are all original, and often insightful, contributions, written by specialists in the history and philosophy of logic

The collection is useful firstly because it contains key resources for anybody interested in Carroll’s regress: a reprint of the regress, excerpts of Carroll’s correspondence with the editor of *Mind*, G.F. Stout, in which Carroll clarifies his view as to what the regress is about, and a very useful ‘Selective Bibliography’ compiled by Clare Imholtz and Amirouche Moktefi. The first part of this bibliography concerns editions and translations of Carroll’s regress; the second part, called ‘Studies and Citations’, is a list of mentions or discussions of the regress by philosophers. Their decision to list these in chronological rather than alphabetical order is excellent, as it gives one a sense of historical context and intellectual lineage. For instance, it makes it vivid how little the regress was discussed before the 1940s, and how, since then, discussions have grown exponentially. Right now, the regress is extremely topical and so the publication of this collection is very welcome and timely.

Below, I offer a brief commentary on each paper of the volume. I omit the very short piece by George Englebretsen, ‘What did Carroll Think the Tortoise said to Achilles?’, as it strikes me as more of a personal note or autobiographical record of his thoughts on the regress and related issues over time than an article about Carroll’s regress.

The first paper is ‘The Making of “What the Tortoise Said to Achilles”’: Lewis Carroll’s Logical Investigations Towards a Workable Theory of Hypotheticals’, written by the editors. This article provides extremely rich and useful contextual information about Carroll’s regress, for instance concerning Carroll’s references and allusions to Euclid and Zeno. But the most fascinating material they present has to do with the nature of hypothetical propositions, which was one of Carroll’s key interests at the time he wrote the regress. There are many entries in his diaries about this issue in the 1890s, and in 1894, the year before publishing his regress, Carroll had written another paper for *Mind*, entitled ‘A Logical Paradox’ (also known as the

Barbershop Paradox). In it, he discusses the nature of hypothetical propositions and whether they should be understood as material conditionals. Moktefi and Abeles interestingly and successfully highlight how these two papers, however different in their styles and outlooks, can be understood as informed by a common interest in hypothetical propositions. As they state it (p. 40): ‘“A Logical Paradox” and “What Achilles Said to the Tortoise” were the results of this ongoing investigation and not accidental contributions. These two papers might not capture Carroll’s definitive theory of hypotheticals, but they certainly were important steps towards it.’ They make a good case that this is so, even though a clearer articulation of how much of the regress turns on a specific view of hypotheticals would have been helpful. For instance, in different formulations of his regress, Carroll goes back and forth between what look like strict and what look like material conditionals, and it would have been interesting to feed this into their discussion.

The second paper is ‘Lessons from Lewis Carroll’s Paradox of Inference’ by Mathieu Marion. This examines the widely held ‘moral’ that philosophers have taken from the regress, which is that one should not put one’s rules of inference as a premise to an inference according to that rule. The aim of the paper is to make links between different authors who seem to have upheld versions of this lesson – such as, besides Lewis Carroll, John Cook Wilson, Bertrand Russell, Bernard Bolzano and, famously, Gilbert Ryle. The discussion of Bolzano is particularly interesting as he seems to have anticipated Carroll’s regress in his 1837 book *A Theory of Science* §199. Marion wishes to draw two conclusions from this discussion. The first is that ultimately the regress rests on the mistake of confusing the forms ‘if P, then Q’ and ‘P. Therefore: Q’, a mistake which Marion interestingly shows has a long history, going back to Greek Logic. The second is that one can infer according to a rule without ‘the need to entertain the corresponding logical truth’. This sort of point is mostly derived from Ryle, who thinks that it is because Achilles and the Tortoise merely *know that* the premises follow from the conclusion (the logical truth) rather than *know how* to infer from the premises to the conclusion (the logical rule) that they fall into a regress. However, this Rylean interpretation of the regress should really be reexamined: for one thing it is not obviously a good interpretation; for another recent challenges to Ryle’s distinction between knowing how and knowing that might undercut it.

The fourth paper, ‘The Philosophical Significance of Carroll’s Regress’, is by Pascal Engel. This essay engages with the way Carroll’s regress is relevant to contemporary debates in the philosophy of logic, and in particular its epistemology. It takes Carroll’s regress to be ‘not only a mirror for epistemology in general, and perhaps also for moral epistemology’ (p. 105). The essay is essentially a survey of the different philosophical discussions, mostly epistemological, that he sees as relevant to Carroll’s regress, such as: the nature of assertion; externalism and internalism about justification; discussions over foundationalism, conventionalism, and coherentism about justification; the connection between understanding a logical rule and knowing it; Ryle’s account of knowing a logical rule as knowing how; Wittgenstein’s rule following considerations; the normativity of logic; the nature of akrasia; epistemic skepticism and the epistemic closure principle. While the essay glosses rather quickly over these themes, and one might be left with the impression that Carroll’s regress connects with about every debate in the philosophy of logic but at times in a somewhat superficial way, it is impressively knowledgeable, philosophically engaging and provides much food for thought. It is worth making special mention of Engel’s interesting section 4, concerned with the normativity of logic, akrasia and the distinction between theoretical and practical normativity; topics that have all become prominent in recent discussions of Carroll’s regress.

The last paper is John Woods’ wonderful essay ‘Required by Logic’, which offers an informal and lively attempt at making sense of the regress. It offers a close – sometimes line

by line – reading which is very helpful in part for his insights and in part for its irreverence. Woods for instance does not hesitate to castigate Carroll when bits of the dialogue do not make much sense (e.g. pp. 117-8), which might come as a relief to the puzzled reader. He is also refreshingly critical of famous commentators such as Ryle, who have become very influential in the interpretation of Carroll's regress: to Ryle's criticism that Carroll's protagonists are confused between premises and rules of inferences, Woods rightly responds: 'since rules of inferences aren't discussed in "What the Tortoise said to Achilles", its parties can hardly be faulted for assigning to a rule a function it can't properly perform' (p. 120). This raises the possibility that Ryle may have missed the point of Carroll's regress, and his interpretation of it might be on shakier grounds than the common currency view would have it. Towards the end of the paper Woods suggests that the issue in the regress is really one of normativity (as is echoed in the title) and it would have been nice to have more of his thoughts on this.

Overall the contributions to this collection were very helpful and enjoyable to read and mostly excellent pieces of scholarship. There were some repetitions, which is inevitable, but these contributions all brought in something different. In particular one gets a very good sense of the historical context of the regress and of its early interpretations. This collection was probably not the place for it but it would have been nice to have more thorough philosophical examination of some of the interpretations offered, of whether they are compelling, and of whether they are answerable. Equally what the collection highlights is that there is still much room for interpretation and discussion of Carroll's regress.